

Alcohol as a Risk Factor for Sudden Infant Death Syndrome (SIDS)

Commentary Reviews by Thomas G. Keens, MD and Henry F. Krous, MD

~ December 31, 2010 ~

“Earlier today, I sent you all an e-mail describing a research study which showed an increased number of “SIDS” deaths on New Year’s Eve and Day compared to other days of the year. The authors postulated that alcohol ingestion by parents decreased their ability to provide a safe sleeping environment for their infants, thereby increasing the SIDS rate. They do not suggest that alcohol is a biological cause for SIDS. Neither do they suggest that alcohol increases deaths in bed sharing, as they did not have information about how many deaths occurred with bed sharing. I should point out that the study did not directly have information about whether or not the deaths occurred in families where alcohol ingestion was involved. Rather, they used statistical methods to infer this. While this study may provide a message useful in reducing the risk of SIDS, there are a number of limitations. *Doctor Henry Krous*, a renowned SIDS researcher provided the following comments about the study. I think they are valid, and I share them with you with his permission.”

“Let me add to one of Henry’s comments below: His extensive study of San Diego data do not show an increased incidence of SIDS on week-ends, as suggested in this recent study. Similarly, a study we did using California data did not show an increased risk of SIDS on week-ends.” (Chang, R-K.R., T.G. Keens, S. Rodriguez, and A.Y. Chen. Sudden infant death syndrome: changing epidemiologic patterns in California 1989-2004. *Journal of Pediatrics*, 153: 498-502,2008).

“Please consider *Doctor Krous’* comments when evaluating this study.”

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(Continued)

“While I think there is a likely association between alcohol and SIDS (see paper of Kinney et al re alcohol and SIDS in the Northern Plains Indian population), this paper has significant limitations, which they largely acknowledge, but the following should be kept in mind while reading it:

1. A standardized SIDS definition was not applied, during much of the study interval, the Seattle definition which did not mandate scene investigation was in effect.
2. A standardized approach to scene investigation and autopsy was not followed.
3. There is no data on alcohol consumption or alcohol levels in either the mothers or infants for any of the cases; in fact, there is essentially no data aside from birth and death date and death certificate cause of death on any of the cases.
4. Death certificate data are notoriously inaccurate for studies of this type, despite this particular study's strength of numbers, national scope, study interval, and statistical approach.

The San Diego SIDS Research Project database does not show a SIDS spike on New Year's day, the fourth of July, or on weekends among cases evaluated over 20 years by a very standardized approach to diagnosis, scene investigation and autopsy; and while we have essentially no data on maternal alcohol levels at the time of the infant's death, alcohol levels in the infants is frequently screened for and nearly always found to be negative (of course absent breast feeding, one would expect negative alcohol levels; in this regard, we do not have analyzed our data with this question in mind).

We agree with the authors that more research is needed with respect to caretaker/maternal alcohol consumption/levels and infant alcohol levels AT THE TIME OF THE INFANT'S DEATH and SIDS to understand this possible association. And we agree with the authors about the importance of ensuring safe infant sleep environments by following the *Back to Sleep* recommendations to reduce the risk of SIDS.

A final word on alcohol and infant death, I think the association may be with accidental asphyxiation rather than SIDS, of course without comprehensive scene investigation; such diagnoses will be missed; I suspect many of the 'SIDS' diagnoses in the study by Phillips et al were, in fact, accidental asphyxia rather than SIDS.

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